News Updates

- The U.S. NRC voted to approve the amended AP1000 design certification on December 22, 2011. The Commission also announced the rule would be effective immediately after it was published in the Federal Register on December 30, 2011.
- A final rule for the GE-ABWR design certification amendment was approved and published in the Federal Register on December 16, 2011. The rule will become effective January 17, 2012.
- The condenser for Vogtle Unit 3 has been completed by Japan's Toshiba and began its journey from Sacheon to Savannah, Georgia on November 21. The condenser marks the first major component Toshiba has shipped for the new generation of U.S nuclear power plants.
- After determining Toshiba controls the Nuclear Innovation North America (NINA), the U.S. NRC said it would suspend the review of the non-foreign ownership requirements of the South Texas Project. The NRC will continue to review the COL application but will not issue a license until the foreign ownership requirements are met.
- Korea Electric Power Corporation (KEPCO) will meet with the U.S. NRC on January 19, 2012 to begin pre-application interactions regarding the Advanced Power Reactor (APR) 1400.

Combined Construction and Operating License (COL)

Summary: Eighteen COL applications have been docketed, twelve of which (totaling 20 nuclear reactors) remain under active NRC review. NRC suspended review of five applications due to changes in technology or economic considerations; one additional application was withdrawn and resubmitted as an ESP. The Reference COL (R-COL) application has been submitted for five reactor designs (ESBWR R-COL was transferred to Fermi since North Anna changed to the US-APWR); the 12 subsequent COLs (S-COLs) will incorporate the corresponding R-COL application by reference, noting any site-specific departures. No COLs have been issued to date.

	UTILITY	SITE/LOCATION		REACTOR/ NO. UNITS		COLA DATES		REVIEW PHASE IN PROGRESS	
						Submitted	Docketed	Safety [4]	Environ.[5]
Active COL Applications	Southern Nuclear	Vogtle	GA	AP1000 [1]	2	3/31/08	5/30/08	Completed	Completed
	SCE&G	V.C. Summer	SC	AP1000	2	3/27/08	7/31/08	Completed	Completed
	STP Nuclear Operating Co.	South Texas Project	TX	ABWR [1]	2	9/07	11/29/07	Ph. 2	Completed
	Luminant (TXU)	Comanche Peak	TX	US-APWR [1]	2	9/19/08	12/2/08	Ph. 2	Completed
	UniStar (Constellation)	Calvert Cliffs	MD	US-EPR [1]	1	3/08	6/3/08	Ph. 2	Completed
	DTE Energy	Fermi	MI	ESBWR [1]	1	9/18/08	11/25/08	Ph. 2	Ph. 2
	Dominion Energy	North Anna	VA	US-APWR	1	11/27/07	1/28/08	Ph. A	Ph. 2
	Duke Energy	William States Lee	SC	AP1000	2	12/13/07	2/25/08	Ph. B	Ph. 2
	Florida Power and Light	Turkey Point	FL	AP1000	2	6/30/09	9/4/09	Ph. A	Ph. 2
	PPL (UniStar)	Bell Bend	PA	US-EPR	1	10/10/08	12/19/08	Ph. A	Ph. 2
	Progress Energy	Shearon Harris	NC	AP1000	2	2/19/08	4/17/08	Ph. B	Ph. 2
	Progress Energy	Levy	FL	AP1000	2	7/30/08	10/6/08	Ph. B	Ph. 3
Suspended	Entergy (NuStart)	Grand Gulf	MS	ESBWR	1	2/08	4/17/08	Suspended	Suspended
	Entergy	River Bend	LA	ESBWR	1	9/25/08	12/4/08	Suspended	Suspended
	AmerenUE (UniStar)	Callaway	MO	US-EPR	1	7/24/08	12/12/08	Suspended	Suspended
	UniStar (Constellation)	Nine Mile Point	NY	US-EPR	1	9/30/08	12/11/08	Suspended	Suspended
	TVA (NuStart)	Bellefonte	AL	AP1000	2	10/07	1/18/08	Suspended	Suspended

[1] Reference COL Application (R-COL)

[4] **Safety Review:** ***R-COL Ph 1*** Issue RAIs ***Ph 2*** SER w/Open Items ***Ph 3*** ACRS Review ***Ph 4*** Advanced SER/ No OI ***Ph 5*** ACRS Review ***Ph 6*** Final SER
S-COL Ph A Issue RAIs and supplemental RAIs ***Ph B*** Advanced SER/ No OI ***Ph C*** ACRS Review ***Ph D*** Final SER

[5] **Environmental Review Phases:** ***Ph 1*** Environmental Scoping Report ***Ph 2*** Draft EIS ***Ph 3*** Public comment ***Ph 4*** Final EIS

Reactor Design Certification (DC)

Summary: Two reactor designs that are being considered for future builds are certified; two SMR designs are in the pre-application stage and two renewal applications are under NRC review.

- GE ABWR – Certified in 1997 (10CFR52 App A). The final rule for the STPNOC design certification amendment will become effective January 17, 2012. Toshiba and GE have also submitted Design Certification renewal applications that are currently under review.
- Westinghouse AP1000 – Amended design certified on December 30, 2011 (10CFR52 App D).
- AREVA US-EPR – Submitted December 12, 2007, and docketed February 25, 2008; rulemaking expected in June 2013.
- Mitsubishi Heavy Industries US-APWR – Submitted December 31, 2007, and docketed February 29, 2008; rulemaking expected in October 2014.
- GE ESBWR – Final Design Approval in March 2011; rulemaking expected in May 2012.
- KEPCO APR-1400 – Pre-application interactions began in January 2012
- NuScale SMR – Pre-application interactions began in July 2008. Design certification application expected in the first quarter of 2012.
- B&W mPower– Pre-application interactions began in July 2009. Design certification application expected in 2013.

Early Site Permits (ESP)

Summary: Four ESPs issued; two under review:

- The following ESPs have been issued: Exelon – Clinton (IL), 3/15/07; Entergy – Grand Gulf (MS), 4/5/07; Dominion – North Anna (VA), 11/ 27/07; Southern – Vogtle site (GA), 08/26/09.
- On March 25, 2010, Exelon submitted an ESP application for its Victoria County site. The final SER and EIS are expected to be completed by late 2013.
- PSEG submitted an ESP application for its nuclear plant site in Salem County, New Jersey, on May 26, 2010. The final SER and EIS are expected in mid to late 2014.
- NRC anticipates two further ESP applications at Blue Castle and Callaway.

New Nuclear Plant Orders

Summary: Six plant construction contracts have been initiated; nine power companies have ordered large component forgings from three reactor vendors for potential nuclear plants; one vendor ordered other large equipment; two vendors are building large fabrication facilities.

Long-Lead Equipment Orders: Toshiba and Westinghouse have placed large forging orders; Westinghouse has also ordered reactor coolant pumps and containment liner plates.

- SCE&G and Southern have contracted with Westinghouse for long-lead component forgings.
- Japan Steel Works is expanding capacity; AREVA, Doosan, BWXT, and Russia's Uralmash-Izhora Group (OMZ) are among those reportedly developing large forging capabilities.
- AREVA's heavy component manufacturing facility in Newport News, Virginia has been postponed until market conditions become more favorable
- Shaw and Westinghouse built a 410,000-square-foot facility at the Port of Lake Charles, Louisiana, to produce structural, piping, equipment, and other modules for the AP1000 technology.

Plant Construction Contracts: Engineering, Procurement, and Construction (EPC) contracts signed for four plants; a term sheet for a future EPC contract has been signed for one plant.

- Southern Nuclear with Westinghouse and Shaw Group for two AP1000s at Vogtle.
- SCE&G and Santee Cooper with Westinghouse for two AP1000s at V.C. Summer.
- Progress Energy with Westinghouse and Shaw Group for two AP1000s at Levy County.
- STPNOC with Toshiba for two ABWRs at South Texas Project.
- TVA has signed a contract with AREVA for Engineering, Construction and component-replacement at Bellefonte Unit 1.
- NuScale has signed an agreement with Fluor Corp. for engineering and construction services for future NuScale facilities.

New Plant Construction, Operation, Deferral

Summary: Site preparatory work continues for Vogtle Units 3 and 4 and V.C. Summer Units 2 and 3. TVA is proceeding with the completion of the Watts Bar 2 and Bellefonte 1 reactors.

New Nuclear Plants under Construction: Vogtle Units 3 and 4 and V.C. Summer Units 2 and 3 are on schedule with COLs expected to be issued early to mid 2012.

- At the Vogtle site, the platform for the heavy-lift derrick crane has been completed and the first part of the crane assembly is currently being installed on the track. Welding has also begun on the bottom head of the Unit 3 containment vessel as plates continue to arrive from Japan. Upon arrival from Japan, the condenser will also be installed.
- Construction is on schedule for V.C. Summer Units 2 and 3 to come online in 2016 and 2019, respectively.
- Watts Bar 2, near Spring City, Tennessee, resumed at an estimated total cost of $2.5 billion with completion expected in 2013.
- Bellefonte Unit 1 construction will begin after Watts Bar 2 completes its first fuel load. The project is estimated to cost $4.9 billion
- Construction of some reactor designs to be built in the US is underway in other countries: four AP1000s in China, two APWRs in Japan, one EPR in Finland and another in France; four ABWRs are in operation in Japan and four are nearing completion in Japan and Taiwan.

New Nuclear Plant Begin Operation: None.

Federal Financial Incentives

Summary: EPAct 2005 incentives are at various stages of development: two rules issued and one notice published.

Standby Support: Rule issued, no contract issued.

- Final Rulemaking Issued August 2006.

Production Tax Credits: Notice issued.

- Internal Revenue Bulletin 2006-18 published May 2006.
- Treasury/IRS may issue additional guidance on Tax Credits for new nuclear plants; however, a date has not been set.

Nuclear Energy Facility Loan Guarantees: Congress granted DOE authority to issue $20.5 billion in guaranteed loans.

- DOE issued solicitations for $18.5 billion in loan guarantees for new nuclear power facilities and $2 billion for the "front end" of the nuclear fuel cycle on June 30, 2008.
- DOE offered a conditional commitment agreement for $2 billion to AREVA to support the Eagle Rock Enrichment Facility in Idaho Falls, Idaho.
- DOE has issued conditional commitment agreements to Georgia Power Corp., Oglethrope Power Corp. and the Municipal Authority of Georgia for the financing of Vogtle Units 3 and 4, totaling $8.33 billion.

Due to the current limited guarantee authority, DOE has narrowed the remaining power facilities under consideration for loan guarantees to three applicants, which are planning to build a total of five reactors.